

5 **METHOD AND APPARATUS FOR MAINTAINING PACKET ORDERING WITH
ERROR RECOVERY AMONG MULTIPLE OUTSTANDING PACKETS
BETWEEN TWO DEVICES**

Abstract of the Disclosure

10 A data communication system (10) has a plurality of devices (12, 14, 17)
which communicate by transmitting information packets having order tags which
are processed by an input unit (60) and an output unit (30) in each device. A
packet is sent from a transmitting device to a receiving device having an ordering
tag wherein both devices are initially order synchronized by starting with the same
15 ordering tag value. Packet transmissions are forced to occur in an order which
follows a predetermined ordering of order values which the ordering tags can
have. If the receiving device does not receive a packet having the correct order tag
value or if a transmission error is detected, the receiving device tells the
transmitting device to resend the packet. Any subsequent outstanding
20 transmissions are discarded. Packet ordering and verification occurs at each
device-to-device connection.